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THYRATRON
MERCURY-VAPOR TRIODE

DATA

Electrical:

Heater, for Unipotential Cathode:				
Voltage*	5.0			volts
Current	4.5			amp
Direct Interelectrode Capacitance:				
Grid to Anode (Approx.)	4.4			μμf
Peak Voltage Drop	16			volts
Approximate Control Characteristics:				
Anode Voltage	60	100	1000	volts
Grid Voltage	0	-1.75	-6.5	volts
Ionization Time (Approx.)	10			μseconds
Deionization Time (Approx.)	1000			μseconds

Mechanical:

Mounting Position	Vertical, Base Down
Overall Length	7" ± 1/4"
Seated Length	6-3/8" ± 1/4"
Maximum Diameter	3"
Bulb	ST-23
Cap	Medium
Base	Medium 4-Pin Bayonet

Maximum Ratings, Absolute Values:

PEAK FORWARD ANODE VOLTAGE	1000 max.	volts
PEAK INVERSE ANODE VOLTAGE	1000 max.	volts
GRID VOLTAGE:		
Before Conduction	-500 max.	volts
During Conduction	-10 max.	volts
INSTANTANEOUS ANODE CURRENT:		
Below 25 Cycles	5 max.	amp
25 Cycles and Higher	15 max.	amp
AVERAGE ANODE CURRENT**	2.5 max.	amp
SURGE ANODE CURRENT for 0.1 sec. max.	200 max.	amp
INSTANTANEOUS GRID CURRENT	1.0 max.	amp
AVERAGE GRID CURRENT**	0.25 max.	amp
COND.-MERCURY TEMPERATURE RANGE ▲	40 - 80	°C

* Heater voltage must be applied at least 5 minutes before anode voltage is applied.

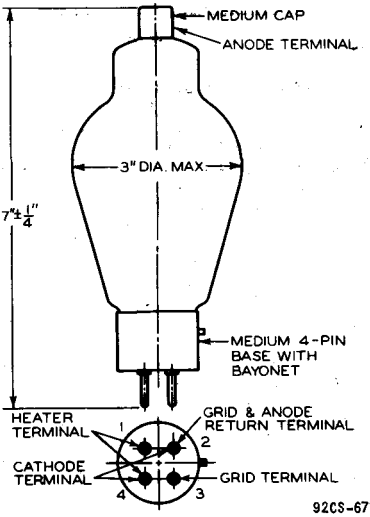
** Averaged over any 15-second interval.

▲ Recommended Condensed Mercury Temperature 40°C.

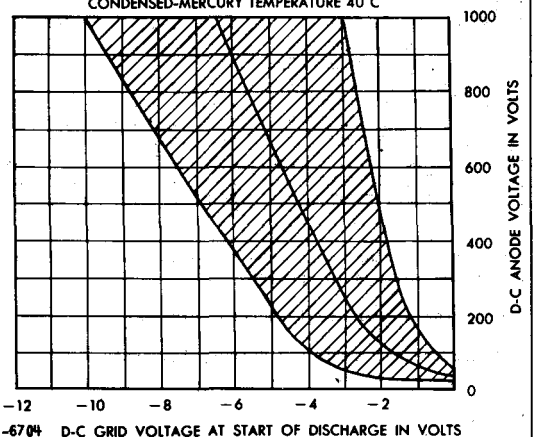
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TYPICAL CONTROL CHARACTERISTICS
SHADED AREA SHOWS RANGE OF CHARACTERISTICS
CONDENSED-MERCURY TEMPERATURE 40°C



TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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MERCURY-VAPOR TRIODE

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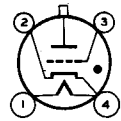
Electrical:

Heater, for Unipotential Cathode:		
Voltage	5.0	volts
Current	4.5	amp
Cathode:		
Minimum Heating Time, prior to tube conduction	5	minutes
Direct Interelectrode Capacitances (Approx.):		
Grid to Anode	2.5	μμf
Grid to Cathode	10	μμf
Ionization Time (Approx.)	10	μsec
Deionization Time (Approx.)	1000	μsec
Anode Voltage Drop (Approx.)	16	volts
Grid-No.1 Control Ratio (Approx.) with grid-No.1 resistor (megohms) = 0	220	

Mechanical:

Mounting Position	Vertical, Base Down
Overall Length	7" ± 1/4"
Seated Length	6-3/8" ± 1/4"
Maximum Diameter	3"
Bulb	ST-23
Cap	Medium
Base	Medium-Shell Small 4-Pin, Bayonet
Basing Designation for BOTTOM VIEW	4BL

Pin 1 - Heater
Pin 2 - Cathode; Circuit Returns



Pin 3 - Grid
Pin 4 - Heater, Cathode
Cap - Anode

Maximum Ratings, *Absolute Values*:

PEAK ANODE VOLTAGE:		
Forward	1000 max.	volts
Inverse	1000 max.	volts
GRID VOLTAGE:		
Before Conduction	-500 max.	volts
During Conduction	-10 max.	volts
CATHODE CURRENT:		
Peak	15 max.	amp
Average**	2.5 max.	amp
Fault, for 0.1 sec. maximum	200 max.	amp
GRID CURRENT:		
Average**	+0.25 max.	amp
COND.-MERCURY TEMPERATURE RANGE▲	+40 to +80	°C
OPERATING FREQUENCY	150 max.	cps

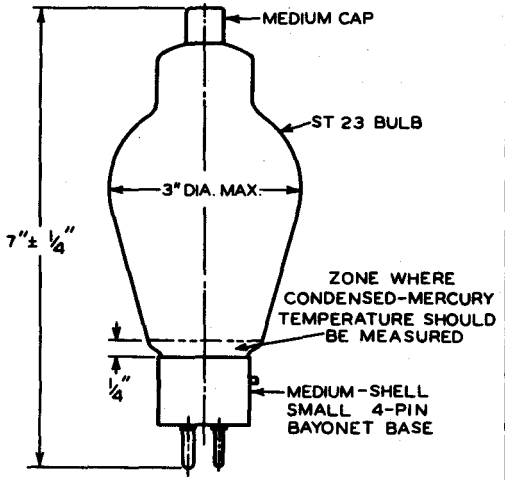
** Averaged over any interval of 15 sec. max.

▲ Recommended operating temperature is 40°C.

← Indicates a change.

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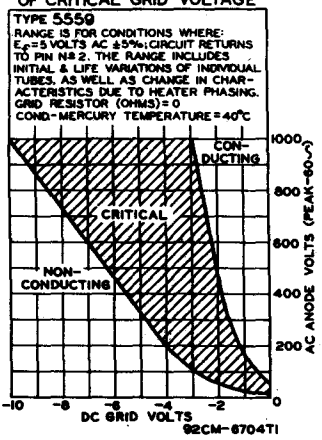


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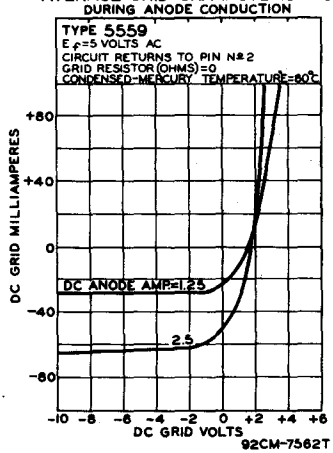
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OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE

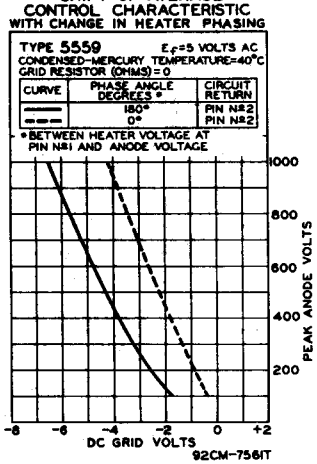


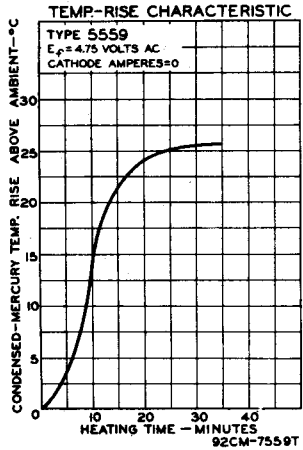
AVERAGE GRID CHARACTERISTICS DURING ANODE CONDUCTION



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